Applicants : Venkateswarlu Kolluri, et al.   Attorney's Docket No.: 10984-540001
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AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An inferred relation weighting process for determining ~~the~~ a strength of an inferred relation between a first <u>Internet object</u> and a second Internet object, ~~which~~ <u>where the first and second Internet objects</u> are not directly linked, comprising

a first link weighting process for determining ~~the~~ <u>a first</u> strength of ~~at least~~ a first link between ~~said~~ <u>the</u> first ~~non-directly linked~~ Internet object and a common object;

a second link weighting process for determining ~~the~~ <u>a second</u> strength of ~~at least~~ a second link between ~~said~~ <u>the</u> second ~~non-directly linked~~ Internet object and ~~said~~ <u>the</u> common object; and

an inferred relation weight calculation process for calculating the strength of ~~said~~ <u>the</u> inferred relation based on the <u>first</u> strength <u>and the second strength;</u> ~~of said at least a first link and said at least a second link~~

<u>wherein the first Internet object comprises a query for retrieving a document and the second Internet object comprises a document.</u>

2. (Currently Amended) The inferred relation weighting process of claim 1, wherein ~~said~~ <u>the</u> common object comprises a plurality of ~~discrete~~ Internet objects, <u>the plurality of Internet objects being</u> ~~each~~ interconnected <u>via discrete links</u> ~~with a discrete link, and said~~ <u>the</u> plurality of

~~discrete~~ Internet objects ~~and links connect said~~ being connected to the first and second links[[,]]; and

wherein ~~said~~ the inferred relation weighting process further comprises:

an intermediate link weighting process for determining ~~the~~ a strength of each ~~said~~ discrete link, wherein the strength of ~~said~~ the inferred relation is based also on a ~~the~~ strength of each ~~said~~ discrete link ~~and the strength of said at least a first link and said at least a second link.~~ (original)

3. (Cancelled)

4. (Currently Amended) The inferred relation weighting process of claim 1, wherein ~~said~~ the common object ~~includes~~ comprises at least one Internet document.

5. (Currently Amended) The inferred relation weighting process of claim 2, further comprising:

a link limitation process for specifying a link limit concerning ~~the~~ a maximum number of links used to determine the inferred relation ~~allowed to connect said first and second non-directly linked Internet objects~~.

6. (Currently Amended) The inferred relation weighting process of claim 2, further comprising:

an incoming link analysis process for determining ~~the~~ a number of objects linked to each

~~of said plurality of~~ Internet object ~~objects~~, wherein ~~the~~ an incoming link value of ~~each said~~ a

target Internet object is ~~directly~~ proportional to ~~the~~ a number of objects linked to ~~that~~ the target

Internet object.

7. (Currently Amended) The inferred relation weighting process of claim 2, further

comprising:

an outgoing link analysis process for determining ~~the~~ a number of objects that each ~~of~~

~~said plurality of~~ Internet ~~objects~~ object is linked to, wherein ~~the~~ an outgoing link value of ~~each~~

~~said~~ a target Internet object is ~~directly~~ proportional to ~~the~~ a number of objects ~~that said~~ to which

the target Internet object is linked ~~to~~.

8. (Currently Amended) The inferred relation weighting process of claim 2, wherein

~~said~~ the inferred relation weight calculation process ~~includes~~ comprises a ~~known~~ relation

recalculation process for redefining ~~the~~ values ~~of the strength~~ corresponding to strengths of ~~each~~

~~said~~ discrete ~~link~~ links and to the first and second strengths ~~strength of said at least a first link~~

~~and said at least a second link~~ in response to ~~the~~ calculation of ~~said~~ the strength of ~~said~~ the

inferred relation.

9. (Currently Amended) The inferred relation weighting process of claim 1, wherein at

least one of ~~said~~ the Internet objects ~~is~~ comprises a transaction record.

10. (Cancelled)

11. (Currently Amended) The inferred relation weighting process of claim 1, wherein at least one of ~~said~~ the Internet objects ~~is~~ comprises an Internet document.

12. (Currently Amended) The inferred relation weighting process of claim 1, wherein ~~said~~ the strength of ~~said~~ the inferred relation ~~is~~ corresponds to a relevance score.

13. (Currently Amended) The inferred relation weighting process of claim 9, wherein ~~said~~ the relevance score ~~is~~ comprises a percentage.

14. (Currently Amended) An inferred relation weighting process for determining a ~~the~~ strength of an inferred relation between a first Internet object and a second Internet object, where the first and second Internet objects ~~which~~ are not directly linked, comprising:

a first link weighting process for determining ~~the~~ a first strength of ~~at least~~ a first link between ~~said~~ the first ~~non-directly-linked~~ Internet object and a plurality of common objects;

a second link weighting process for determining ~~the~~ a second strength of ~~at least~~ a second link between ~~said~~ the second ~~non-directly-linked~~ Internet object and ~~said~~ the plurality of common objects[[;]], wherein ~~said~~ the plurality of common objects comprises a first common object

connected to ~~said~~ the first link[[;]], a second common object connected to ~~said~~ the second link, and an intermediate link ~~interconnecting said~~ between the first and second common objects;

an intermediate link weighting process for determining ~~the~~ a strength of ~~said~~ the intermediate link; and

an inferred relation weight calculation process for calculating the strength of ~~said~~ the inferred relation based on the first strength, the second strength ~~of said at least a first link, said at least a second link~~, and ~~said~~ the strength of the intermediate link;

wherein the first Internet object comprises a query for retrieving a document and the second Internet object comprises a document.

15. (Currently Amended) The inferred relation weighting process of claim 14, further comprising:

a link limitation process for specifying a link limit concerning ~~the~~ a maximum number of links used to determine the inferred relation ~~allowed to connect said first and second non-directly linked Internet objects~~.

16. (Currently Amended) The inferred relation weighting process of claim 14, wherein ~~said~~ the plurality of common objects ~~includes~~ comprises at least one Internet document.

17. (Currently Amended) The inferred relation weighting process of claim 14, wherein ~~said~~ the intermediate link comprises at least one additional common object and a plurality of sub-

links for connecting ~~said~~ the at least one additional common object to ~~said~~ the first and second

common objects[[,]]; and

wherein ~~said~~ the intermediate link weighting process determines the strength of ~~said~~ the

intermediate link based on ~~the~~ individual strengths of ~~said~~ the sub-links.

18. (Currently Amended) The inferred relation weighting process of claim 17, further

comprising:

an incoming link analysis process for determining ~~the~~ a number of objects linked to each

~~of said plurality of~~ Internet object and ~~objects and each said~~ common object, wherein an ~~the~~

incoming link value of ~~each said Internet~~ a target object ~~and each said common object~~ is ~~directly~~

proportional to ~~the~~ number of objects linked to ~~that~~ the target object.

19. (Currently Amended) The inferred relation weighting process of claim 17, further

comprising:

an outgoing link analysis process for determining ~~the~~ a number of objects that each ~~of~~

~~said plurality of~~ Internet ~~objects~~ object and ~~each said~~ common object is linked to, wherein an ~~the~~

outgoing link value of ~~each said Internet~~ a target object ~~and each said common object~~ is ~~directly~~

proportional to ~~the~~ a number of objects ~~that said~~ to which the target object is linked ~~to~~.

20. (Currently Amended) The inferred relation weighting process of claim 17, wherein

~~said~~ the inferred relation weight calculation process ~~includes~~ comprises a ~~known~~ relation

recalculation process for redefining ~~the~~ values <u>corresponding to strengths of the sub-links and to</u>

<u>the first and second strengths</u> ~~of the strength of each said sub-link and the strength of said at least~~

~~a first link and said at least a second link~~ in response to ~~the~~ calculation of ~~said~~ <u>the</u> strength of ~~said~~

<u>the</u> inferred relation.

21. (Currently Amended) The inferred relation weighting process of claim 14<u>,</u> wherein

at least one of ~~said~~ <u>the</u> Internet objects ~~is~~ <u>comprises</u> a transaction record.

22. (Cancelled)

23. (Currently Amended) The inferred relation weighting process of claim 14<u>,</u> wherein

at least one of ~~said~~ <u>the</u> Internet objects ~~is~~ <u>comprises</u> an Internet document.

24. (Currently Amended) The inferred relation weighting process of claim 14<u>,</u> wherein

~~said~~ <u>the</u> strength of ~~said~~ <u>the</u> inferred relation ~~is~~ <u>corresponds to</u> a relevance score.

25. (Currently Amended) The inferred relation weighting process of claim 24<u>,</u> wherein

~~said~~ <u>the</u> relevance score ~~is~~ <u>comprises</u> a percentage.

26. (Currently Amended) A method for determining ~~the~~ a strength of an inferred relation

between a first Internet object and a second Internet object, ~~which~~ where the first and second

Internet objects are not directly linked, the method comprising:

determining ~~the~~ a first strength of ~~at least~~ a first link between the first ~~non-directly linked~~

Internet object and a common object;

determining ~~the~~ a second strength of ~~at least~~ a second link between the second ~~non-directly linked~~ Internet object and the common object; and

calculating ~~the~~ a strength of the inferred relation based on the first strength and the

second strength; ~~of the at least a first link and the at least a second link~~

wherein the first Internet object comprises a query for retrieving a document and the

second Internet object comprises a document.

27. (Currently Amended) The method ~~for determining the strength of an inferred~~

~~relation~~ of claim 26, wherein the common object comprises a plurality of ~~discrete~~ Internet

objects, the plurality of Internet objects being connected via discrete links ~~each interconnected~~

~~with a discrete link, and the plurality of discrete Internet objects and links connect the first and~~

~~second links~~, wherein determining the strength of the inferred relation further comprises:

determining ~~the~~ a strength of each discrete link, wherein the strength of the

inferred relation is based also on ~~the~~ a strength of each discrete link ~~and the strength of~~

~~the at least a first link and the at least a second link~~.

28. (Currently Amended) The method ~~for determining the strength of an inferred relation~~ of claim 27, further comprising:

specifying a link limit concerning ~~the~~ a maximum number of links used to determine the inferred relation ~~allowed to connect the first and second non-directly linked Internet objects~~.

29. (Currently Amended) A ~~computer program product residing on a computer~~ machine-readable medium ~~having~~ for storing ~~a plurality of~~ instructions for implementing an inferred relation weighting process, the inferred relation weighting process for determining a strength of an inferred relation between a first Internet object and a second Internet object, where the first and second Internet objects are not directly linked, wherein the instructions ~~stored thereon which~~, when executed by a ~~the~~ processor, cause ~~that~~ the processor to:

determine ~~the~~ a first strength of ~~at least~~ a first link between the first ~~non-directly linked Internet~~ object and a common object;

determine ~~the~~ a second strength of ~~at least~~ a second link between the second non-~~directly linked~~ Internet object and the common object; and

calculate the strength of the inferred relation based on the first strength and the second strength; ~~of the at least a first link and the at least a second link~~

wherein the first Internet object comprises a query for retrieving a document and the second Internet object comprises a document.

30. (Currently Amended) The ~~computer program product~~ machine-readable medium of claim 29, wherein ~~said~~ the ~~computer~~ machine-readable medium ~~is~~ comprises a random access memory (RAM).

31. (Currently Amended) The ~~computer program product~~ machine-readable medium of claim 29, wherein ~~said~~ the ~~computer~~ machine-readable medium ~~is~~ comprises a read only memory (ROM).

32. (Currently Amended) The ~~computer program product~~ machine-readable medium of claim 29, wherein ~~said~~ the ~~computer~~ machine-readable medium ~~is~~ comprises a hard disk drive.

33. (Currently Amended) An apparatus for executing an inferred relation weighting process for determining a strength of an inferred relation between a first Internet object and a second Internet object, where the first and second Internet objects are not directly linked, the apparatus comprising:

a ~~processor and~~ memory to store instructions that are executable; and ~~configured to:~~

at least one processing device to execute the instructions to:

determine ~~the~~ a first strength of ~~at least~~ a first link between the first ~~non-directly linked~~ Internet object and a common object;

determine ~~the~~ a second strength of ~~at least~~ a second link between the second ~~non-directly linked~~ Internet object and the common object; and

calculate ~~the~~ strength of the inferred relation based on the <u>first</u> strength <u>and the</u>

<u>second strength</u> ~~of the at least a first link and the at least a second link~~;

<u>wherein the first Internet object comprises a query for retrieving a document and</u>

<u>the second Internet object comprises a document.</u>

34. (Currently Amended) The ~~processor and memory~~ <u>apparatus</u> of claim 33<u>,</u> wherein

~~said~~ <u>the</u> processor and memory are incorporated into a personal computer.

35. (Currently Amended) The ~~processor and memory~~ <u>apparatus</u> of claim 33<u>,</u> wherein

~~said~~ <u>the</u> processor and memory are incorporated into a network server.

36. (Currently Amended) The ~~processor and memory~~ <u>apparatus</u> of claim 33<u>,</u> wherein

~~said~~ <u>the</u> processor and memory are incorporated into a single board computer.